CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.13/NH/CSR-5/847/CEMENT/2015-16 Date: 25.05.2015

TEST REPORT ON CEMENT

* CUSTOMER	:	**Asst. Executive Engineer**, Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
*AGENCY	:	**Mr. Nagaraja Hosur,** No.133, 1st Main, 14th Cross, Soundarya Layout, Siddenahalli, Bangalore.
*NAME OF THE WORK	:	Improvements to Footpath 8th Cross road of Santhoshanagara, in ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
*REFERENCE	:	BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 22.05.2015
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	22.05.2015
PERIOD OF TESTING	:	22.05.2015 to 25.05.2015

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	31.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	145 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	490 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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VISHWANATH. I.A.
Chief Executive Officer

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ಎಸ್.ಎಂ ರಸ್ತೆ, ಚಿಕ್ಕಬಿದ್ರಸನಗರ, ಬೆಂಗಳೂರು

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Job No.: CTCE/BBMP/W.No.13/NH/CSR-5/847/SAND-Gradation/2015-16 : 25.05.2015

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
* Agency	: **Mr. Nagaraja Hosur,** No.133, 1st Main, 14th Cross, Soundarya Layout, Siddenahalli, Bangalore.
* Name of Work	: Improvements to Footpath 8th Cross road of Santhoshanagara, in ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 22.05.2015
Technical Reference	: IS : 2386 Part 1 - 1963 RA-2007
Sample ID	: Fine Aggregates
Sample Received on	: 22.05.2015
Date of Testing	: 25.05.2015

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	91.00	90-100	90-100	90-100	95-100
2.36	71.20	60-95	75-100	85-100	95-100
1.18	47.20	30-70	55-90	75-100	90-100
600 Micron	26.70	15-34	35-59	60-79	80-100
300 Micron	10.70	5-20	8-30	12-40	15-50
150 Micron	4.50	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

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Remarks : This sample is under Zone-I specific limits.

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Chief Executive Officer

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Job No.: CTCE/BBMP/W.No.13/NH/CSR-5/847/AGG/GR/2015-16 : 25.05.2015

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
* Agency	: **Mr. Nagaraja Hosur,** No.133, 1st Main, 14th Cross, Soundarya Layout, Siddenahalli, Bangalore.
* Name of Work	: Improvements to Footpath 8th Cross road of Santhoshanagara, in ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 22.05.2015
Technical Reference	: IS : 2386 Part 1 -1963 RA-2007
Sample ID	: Coarse Aggregates (40mm)
Sample Received on	: 22.052015
Date of Testing	: 25.05.2015

Total Wt. of Aggregates in gms= **10000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	97.00	95-100	85-100
20	45.00	30-70	0-20
10	19.00	10-35	0-5
4.75	3.55	0-5	-

* Information is furnished by the Customer/Representative

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Remarks : This sample is under Graded specific limits.

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Job No.: CTCE/BBMP/W.No.13/NH/CSR-5/847/CC Solid Block/2015-16 : 28.05.2015

TEST REPORT ON SOLID CONCRETE BLOCKS

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
* Agency	: **Mr. Nagaraja Hosur,** No.133, 1st Main, 14th Cross, Soundarya Layout, Siddenahalli, Bangalore.
* Name of the Work	: Improvements to Footpath 8th Cross road of Santhoshanagara, in ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 22.05.2015
Sample Received on	: 25.05.2015
Date of Testing	: 28.05.2015
Size of Blocks	: 400mm x 200mm x 200mm
Cross Sectional Area	: 80000 mm^2
Technical Reference	: IS: 2185 (Part 1) - 2005
No. of Blocks Tested	: 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	34.25	258.5	3.23	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	35.26	259.3	3.24	
3	Block 3	35.65	260.3	3.25	
4	Block 4	34.85	261.1	3.26	
5	Block 5	36.21	262.1	3.28	
6	Block 6	34.25	262.3	3.28	
7	Block 7	35.25	263.2	3.29	
8	Block 8	35.65	264.1	3.30	

*Information is furnished by the Customer/Representative.

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Job No.: CTCE/BBMP/W.No.13/NH/CSR-5/847/CC Solid Block/2015-16 : 28.05.2015

TEST REPORT ON SOLID CONCRETE BLOCKS

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
* Agency	: **Mr. Nagaraja Hosur,** No.133, 1st Main, 14th Cross, Soundarya Layout, Siddenahalli, Bangalore.
* Name of the Work	: Improvements to Footpath 8th Cross road of Santhoshanagara, in ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	: BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 22.05.2015
Sample Received on	: 25.05.2015
Date of Testing	: 28.05.2015
Size of Blocks	: 400mm x 150mm x 200mm
Cross Sectional Area	: 60000 mm^2
Technical Reference	: IS: 2185 (Part 1) - 2005
No. of Blocks Tested	: 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	25.65	195.2	3.25	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	26.32	196.2	3.27	
3	Block 3	25.23	198.1	3.30	
4	Block 4	26.32	195.6	3.26	
5	Block 5	25.35	196.3	3.27	
6	Block 6	26.21	197.2	3.29	
7	Block 7	26.21	198.2	3.30	
8	Block 8	25.85	195.5	3.26	

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Job No.: CTCE/BBMP/W.No.13/NH/CSR-5/847/Pre Cast Slab/2015-16 08.06.2015

TEST REPORT ON CONCRETE CORE (PRE CAST SLAB)

* Name of Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP,
* Name of Agency	:	**Mr. Nagaraja Hosur,** No.133, 1st Main, 14th Cross, Soundarya Layout, Siddenahalli, Bangalore.
* Name of work	:	Improvements to Footpath 8th Cross road of Santhoshanagara, in ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 22.05.2015
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Pre Cast Slab
Sample Received on	:	02.06.2015
Date of Testing	:	08.06.2015

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	80.00	0.395	2514.65	1.60	0.960	32.05	16.32	17.63	16.92	21.15
2	50.00	81.00	0.400	2515.04	1.62	0.965	32.55	16.58	17.90	17.28	21.60
3	50.00	82.00	0.406	2521.64	1.64	0.970	33.10	16.86	18.21	17.66	22.08

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